OCTOBER 1966
VOL. 32 NO. 3

Soil Conservation

DEVOTED TO THE WISE USE OF
LAND AND WATER RESOURCES

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SOIL CONSERVATION SERVICE

U. S. DEPARTMENT OF AGRICULTURE

Quality . . .

With all our concern for the economic aspects of recreation as a private business enterprise, we must not lose sight of the fundamental role of recreation itself: to enhance the quality of living.

Seeking to clarify the murky relationship between private and public recreation services, we invited Professor Louis F. Twardzik of Michigan State University to give us his thoughts on the topic.

His statement (p. 63) aptly mirrors and elaborates Secretary Freeman's philosophy (p. 51) that the purpose of resource development is to improve the quality of rural life, not merely to yield a commercial harvest.

In other words, rural recreation is for local rural residents, too.

Resources: The current tide of recreation seekers into the countryside makes it plain that land and water resources demand as much attention as activities and people have in the past in the professions concerned with recreation.

Herein lies the special role of SCS in recreation development—to give skilled direction in the use of land and water, plants and animals, to satisfy recreation needs.

Recreation Specialist Frank Edminster describes (p. 51) a procedure to inventory these resources and match them to human requirements in a community.

And the head of Mississippi's State Association of Conservation Districts, Scott Warfield, tells how one State already is using its inventory (p. 55).

COVER: A wide variety of outdoor fun centers around this flood-prevention structure in the South Fork Watershed Project, Potomac Valley Soil Conservation District, West Virginia.

Soil Conservation

Devoted to the wise use of land and water resources

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Crisis of Quality

By Orville L. Freeman

THE AMERICAN countryside —that expanse of nature separating our cities and towns and rural hamlets—represents all the land we have left to grow in, play in, and build on the American dream.

That is all we have; and when it is divided and divided again for

(Continued on p. 52)

From remarks by the Secretary of Agriculture at dedication of the Arlington watershed in the Little Sioux Falls Flood Prevention Project, Woodbury County, Iowa, June 18, 1966.

Finding the Potentials for Rural Recreation

By Frank C. Edminster
Resource Development Division, SCS, Washington, D. C.

WITH a broad inventory of developed outdoor recreation areas in rural America nearing completion, soil conservation districts, the Soil Conservation Service, and others are addressing themselves to the more difficult—and even more crucial—question of the potentials for further development.

In the past year and a half most of the 3,000 conservation districts of the Nation have been tallying the vacation farms, golf courses, ski areas, fishing ponds, picnic grounds, parks, and other recreation areas—both private and public—within their boundaries and funneling the information to State centers for summarization.

Under the sponsorship of the National Association of Soil and Water Conservation Districts, the inventories have been completed in more than 40 States and are underway in most of the rest. Twenty-three States have published State summaries.

Thus, for the first time, agencies and groups interested in outdoor recreation have adequate basic data on existing developments in both the private and public sectors.

Now NACD and SCS are implementing the second part of a resolution adopted at the 1964 NACD convention, urging that "soil conservation district supervisors appraise the need for and opportunities of developing income-producing recreation enterprises on farms and other rural lands in their district and modernize their district long-range program and annual work plan to reflect the appraised need. . . "

The problem of appraising potentials for further development is much more involved than simply counting the areas and facilities already in place. It concerns the natural resources on which outdoor recreation is based—land, water, air, plants, and animals.

And, to be realistic, it must be related to *people*—their numbers, characteristics, and where they live and their means of getting around, mainly the highway system.

Following a year of study by a group of recreation and resource specialists, a procedure for appraising recreation potential has been developed and tested. It is ready for field use throughout the country this fall following a series of summer training workshops.

Since there is much detail involved in this procedure, I will describe it here only in general outline.

(Continued on p. 53)

Quality

(Continued from p. 51)

the multiple needs of a nation growing rapidly in population, in urban development, in highway mileage, in an array of man-oriented uses alien to nature, this natural landscape that once seemed so limitless shrinks before us at every turn—and we are made aware of a challenging crisis in the countryside.

The crisis we face is a crisis of quality in a nation whose people demand quality in the marketplace but have failed to provide for it in the natural environment.

It is a crisis of quantity in a land whose rich natural endowment has been vandalized to a degree of grave proportions.

But most of all it is a crisis of people—the tragic loss of young minds and spirits of evolving skills and talents.

The recognition of this crisis in the countryside has given birth to a new concept of conservation.

President Johnson expressed it in his message on natural beauty last year.

"Our conservation," he said, "must be not just the classic conservation of protection and development but a creative conservation of restoration and innovation. Its concern is not with nature alone but with the total relation between man and the world around him. Its object is not just man's welfare but the dignity of man's spirit."

Cooperation at the local, State, and Federal levels has brought us a good piece along the road to sound conservation. Now we must build on that cooperative effort, and multiply it by heaping success on success as we have been privileged to do in the past.

To succeed in this mission we will have to carry the word far and wide that conservation—the wise use and development of our environment in the countryside and the city—is everybody's business. It is everybody's problem when greedy or heedless people waste our land, our forests, our fish, our wildlife—dump raw sewage into our streams—pollute the very air we breathe.

Let the word go forth that America as a whole has a stake in the proper use of soil whether privately or publicly owned . . .

—has a stake in fish, game, and other wildlife on private as well as public preserves . . .

—has an interest in parks, playgrounds, and other recreational areas in private or public hands . . .

—is interested in natural beauty in our cities, along rural roads, beside a creek or mighty river . . .

—is increasingly interested in having clean water, adequate water, but not floods.

The new concept of conservation cannot be achieved by government—it can be achieved only by people . . . Government can help—government must help—in all areas, local, State, and national.

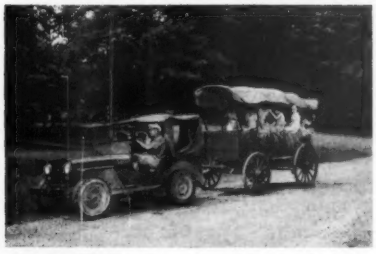
* * * *

Truly, this is an exciting era—and there are exciting jobs to be done.

What could be more stimulating . . . more rewarding . . . than the great task of conservation in the broad sense in which we have viewed it?

For the well-being of the whole of the Nation—farm, rural, and urban alike—what greater contribution can be made to this and to succeeding generations than to render it possible for people to live in a rich and rewarding relationship with the world of nature around them? ♦

The types of recreation enterprises recorded in the inventory are (top to bottom): (1) Vacation cabins, cottages, and homesites; (2) camping grounds; (3) picnic and field sports areas; (4) fishing waters; (5) golf courses; (6) hunting areas. Opposite page: (7) Natural, scenic, and historic areas; (8) riding stables; (9) shooting preserves; (10) vacation farms and ranches; (11) water sports areas; and (12) winter sports areas.



Potentials

(Continued from p. 51)

The first step is to recognize that development potential relates to specific *kinds of areas or enterprises*, not to recreation considered as a whole.

For this breakdown, the districts are using the 12 kinds of enterprises used in the "NACD Inventory of Existing Outdoor Private Recreation Businesses:" (1) Vacation cabins, cottages, and homesites; (2) camping grounds; (3) picnic and field sports areas; (4) fishing waters; (5) golf courses; (6) hunting areas; (7) natural, scenic, and historic areas; (8) riding stables; (9) shooting preserves; (10) vacation farms and ranches; (11) water sports areas; (12) winter sports areas. Any of these that do not apply locally are omitted, and any others of importance may be added.

Key elements

The second step is to recognize the *key elements* that determine the potential for development of each type of area or enterprise. These are qualities and extent of resources, location and characteristics of the human population, extent and character of the highway system, and consideration of land use.

In various combinations for different kinds of developments, the following key elements determine the potential: (1) Climate; (2) scenery and scenic areas; (3) natural areas; (4) historic areas; (5) soils; (6) water—both existing areas and potential impoundment sites; (7) wildlife—habitat and populations; (8) people—population and distribution, age classes, occupations, and income levels; (9) location—proximity and access from population centers, a measure of the public road system; and (10) rural ownership and land use pattern.

Step three is to recognize that these various key elements may have different degrees of significance in affecting the potential for each kind of development. For example, for developing water sports areas, the prevalence of water impoundment sites is more important than the quality of scenery.

To account for these variations, each key element is given a numerical weighting, or multiplier, for each kind of development to which it applies. Thus, the key element of water impoundment sites is given a weight of 3 for water sports areas, 2 for fishing waters, and only 1 for vacation farms.

Step four is a process of rating, then scoring, each of the key elements that apply to each type of development being considered.

A *rating* of 0 to 10 for each key element is arrived at by group judgment, based on pertinent facts available and knowledge about the local area.

This rating number is multiplied by the weighting number already assigned to get the *score* for that element for that type of development.

These scores are then added together for each key element to get the total score which reflects the appraisal of potential for the kind of development.

A typical scoring sheet for one kind of development might appear as in the following table:

Water Sports Areas

Key elements	*Multiplier*	*Rating*	*Score*
Climate	1	7	7
Scenery	1	9	9
Water areas			
Existing*	4	10	40
Impoundment sites*	3	2	6
Population of people			
Size and distribution	2	7	14
Age and occupation	1	5	5
Proximity and access			
Proximity to urban centers	1	10	10
Totals	13		91

Total possible score: 130

Adjective appraisal: High, being just within the upper third of the scoring range.

* Possible limiting factors

In the instance given, the area has a high potential for developing water sports areas, although barely

so—a score of 91 out of a possible 130.

This was based heavily on an abundance of existing undeveloped or underdeveloped water, a fairly high population of possible customers, excellent proximity of the area to urban centers where these people live, fine scenery, and good climate. The low score on potential impoundment sites is offset by the high score on existing waters, and the medium score on the age and occupation element is not a very serious limitation.

The asterisks (*) following the two water-area key elements indicate that they can be *limiting factors*. Thus, had there been no undeveloped existing waters suitable for water sports and no or very few good impoundment sites, these vital key elements would render all the rest meaningless. Where such is the case, the key elements that are actually limiting factors are considered first, and an appraisal may sometimes be reached without bothering to score the other elements.

In this manner, a numerical score is reached for the potential of each important type of recreation development in the county or district. A narrative summary gives specific information supporting the numerical rating.

For example, for the water sports area cited above, the "high" score of 91 might be supported by this description: "The potential for developing new water sports areas in Jefferson District is high. Most of this opportunity lies in the western and northwestern townships on the borders of Lake Ontario, particularly around Chaumont Bay, and along the St. Lawrence River, especially around Grindstone Island. These potentials are mainly associated with boating. The prospects are for private developments around Chaumont Bay and public developments around Grindstone Island. While there is substantial development of these water areas at this time, including a general use for vacation homes along the shores, the possibilities for increased boating capacity are many times the present scale of development. This would require the conversion of a limited number of present vacation home properties to more intensive development. In addition to the main potentials in the western and northwestern townships, there is also a limited growth potential for water sports, both boating (including fishing) and swimming, along stretches of Black River, at Perch Lake, and at several of the possible new impoundments."

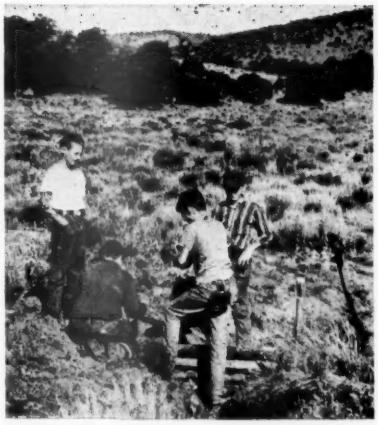
This type of appraisal is completed for each kind of recreation development. All together, they constitute the full appraisal of potentials.

The job of making these appraisals can be divided roughly into three parts: Gathering statistics, making certain inventories, and the group-judgment appraisal using the factual information brought together.

Much of the statistical data needed comes from the U.S. Census of Population and the Census of Agriculture. The data can most easily be brought together in a central location, such as the State office of a conservation agency. Climatic data can also be obtained from published sources at a central location. The highway information is best obtained locally.

Inventories being made are of the natural resources of particular value in outdoor recreation; namely, natural areas, scenic areas, historic areas, existing water areas, and potential water impoundment sites. In many counties, a wildlife inventory also is needed.

It is not possible at this time to state exactly when this appraisal of recreation potentials will be completed. It is needed in all districts where outdoor recreation is now or is likely to be important. Present plans are that some 1,100 to 1,200 counties will have appraisals made in the next 2 years. ♦



Scouts of Troop 294 work on a log dam that will help stabilize a gully on the Clyde Alexander ranch.

Scouts Tame Ranch Gully

CONSERVATION is everybody's business—and the members of Boy Scout Troop 294 in Monte Vista, Colo., are doing their best to "mind their business." During the summer of 1965, seven Scouts began work on the Soil and Water Conservation Merit Badge.

On the 2,300-acre ranch of Center Soil Conservation District Cooperator Clyde Alexander near Saguache, Colo., the boys went to work on a typical gully. They dug core trenches, cut and laid logs, backfilled, and riprapped with rock. When the noise died down and the dust settled, the boys had 10 log barriers stretching across the small but wild gully.

Two weeks later, the result of their efforts was already visible. Rains had washed trash, rocks, and silt into the gully and had piled it up behind the dams.

With this experience behind them, the boys looked around and saw other gullies which were not treated and had been cut deeper by the rains. Their conservation program had just begun, and they eagerly awaited the opportunity to do more.—FRANK PARRILL, *Work Unit Conservationist, SCS, Center, Colo.* ♦

Just what we needed . . . .

Districts Put Recreation Inventory to Good Use

By Scott Warfield
President, Mississippi Association of Soil and Water Conservation District Commissioners

An SCS-designed lake on the Bienville National Forest attracts thousands of people annually to the surrounding recreation area.

WHEN the National Association of Soil and Water Conservation Districts announced early last year that they would conduct, through their 3,000 affiliated districts, a national inventory of existing outdoor recreation facilities, we in Mississippi were delighted to cooperate.

As a matter of fact, the districts in this State had already started an inventory of this kind, and the subject was not cold. Interested leaders were already well informed, believed there was a definite need for such an inventory, and were in the mood to assist.

When the NACD guides were received, we found they were just what we were looking for, and we got splendid local cooperation from the many individuals, agencies, and groups involved.

Under the capable leadership of Jack Warren, D'Lo, chairman of the Wildlife and Recreation Committee for the Mississippi Association of Soil and Water Conservation District Commissioners, and with technical assistance from the Soil Conservation Service, we had completed and published the Mississippi Inventory by June 30, 1965.

This inventory shows the number of recreation enterprises in Mississippi, operated for profit and by clubs, and gives the acres of land and the acres of water. In more detailed charts and maps, the activities are shown by counties, and further classified as commercial, club, and public developments. At a glance we can determine what kind of facilities exist in any county, the number of each, and the approximate number of people that can be accommodated.

The immediate response to our inventory was gratifying. For instance, a statewide release announcing its completion was used by most of the newspapers and the television and radio stations throughout the State and was carried in some monthly publications. This indicated to us that public interest in outdoor recreational facilities is high in this State.

The inventory itself substantiated the fact that our present facilities are being used. For instance, we recorded a total of 6½ million times, of varying length, during which Mississippi waters were used for recreational purposes. We are certain that hunters took to the field on 1,144,000 occasions during the year and on 409 designated hunting areas.

Exclusive of public facilities, we

Water skiers make good use of the 166-acre lake in the Tackett Creek watershed.

recorded a total of 1,084 recreation enterprises in Mississippi, covering well over a million acres of land and 24,000 acres of water. More than 400 of these enterprises are privately owned and operated for a profit. The remainder are nonprofit clubs.

In all, our facilities — public, club, and private—were enjoyed on more than 12 million occasions during 1964. And this figure does not include the Natchez Trace Parkway and the 17 State parks which, altogether, were used on more than 5½ million occasions.

Since publication of the inventory we have had a number of requests for it, and we are very much pleased that it is enjoying wide use.

Reports to us indicate that the inventory is being used by:

(1) Local soil conservation district commissioners as they develop and revise long-range objectives for the district;

(2) Sponsors of Resource Conservation and Development Projects deciding upon measures to be included in the project plans;

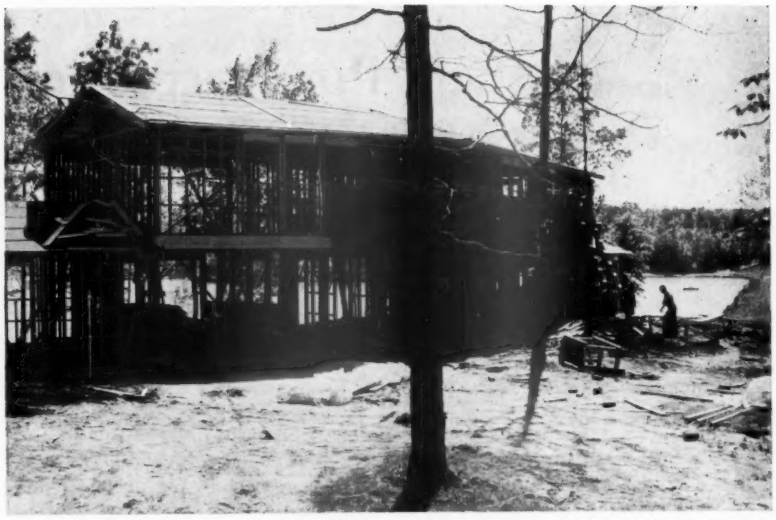
(3) The Mississippi Park System which is preparing, in cooperation with the Bureau of Outdoor Recreation, a long-range State plan to develop adequate recreational facilities;

(4) Soil Conservation Service personnel assisting cooperators at the local level to determine opportunities in the light of existing facilities;

(5) The SCS river basin planning parties who are assembling basic data for basin studies and making projections for future needs;

(6) SCD commissions and watershed sponsors who may be considering recreational developments in small watershed projects.

I have purposely listed item 6 last, because I wanted to elaborate. Through the years, we have had considerable recreational use of both flood control and Public Law 566 floodwater-retarding structures, and we have long appreciated the potential which these projects contain.



This spacious vacation home is being built on the shore of a small watershed lake on land that formerly could not be used because of flood hazard. Quail hunting (below) is a popular sport that gains from conservation-planned land use changes.

In some areas of our State resort homes are going up.

In one county alone three hunting clubs have formed to take advantage of the increased game.

On the banks of one structure, the Mississippi Presbytery has already begun construction of a $50,000 church camp.

The inventory listed a conservative 29,525 visits in 1964 on floodwater-retarding structures not yet developed for recreation.

These are just a few of the signs which lead us to believe that outdoor recreational development may have a significant future in Mississippi.

That others are thinking along the same lines is evidenced by the fact that one-half of all current requests for watershed planning assistance in this State include recreational purposes on at least one site.

An increasing number of requests for information and technical assistance are also coming in from farmer-cooperators throughout the State. We feel that the Outdoor Recreation Inventory will be a valuable tool in advising them.

Finally, we in Mississippi are hopeful that the districts can keep ahead of this interest in outdoor recreation, giving leadership and guidance to this recent development in our program. ♦

Ohio Farmers Switch to Golf But Keep the Conservation

By Don Lebold
Soil Conservationist, SCS, Lancaster, Ohio

BILL and Dick George follow about the same basic conservation patterns on the family farm in Fairfield County, Ohio, as their father, Carl, began 30 years ago.

The main difference is the crop. They specialize in recreation with golf and swimming on the land their father used for grain crops.

The senior George became a cooperator with the newly formed Fairfield Soil and Water Conservation District back in 1945. With planning help from Soil Conservation Service technicians aiding the district, Mr. George established some much needed erosion-control measures. His square fields became 39 acres of contour strips designed to hold as much water as possible in the soil. Diversions, 950 feet across the slopes, carried excess runoff water slowly out of his fields, leaving topsoil in place.

Changing the crop

About 150 rods of fence were moved or rebuilt to fit the new land patterns. The conservation plan called for 69 acres of cropland with a 3-year crop rotation in the bottom land. A 4-year rotation, including 2 years of meadow, was prescribed for the contour strips. The new conservation plan proved itself in growing profits, and in 1949 Mr. George purchased an additional 100 acres and added 25 acres of strip cropping to his conservation plan. His dairy herd was increased to 30 cows, and the farm was now supporting two families.

In 1955, Bill, who had been working away in radio-TV advertising and promotion, returned, and after much discussion with Dick about the growing population of Lancaster and increasing demand for outdoor recreation, the two decided to change the primary farm operations from grain and grass to golf and grass. As Bill said, "I complained about the present courses being too crowded and decided to build my own, and this is just what we did."

One set of contour strips was replaced by the fairways and greens of their first nine-hole course.

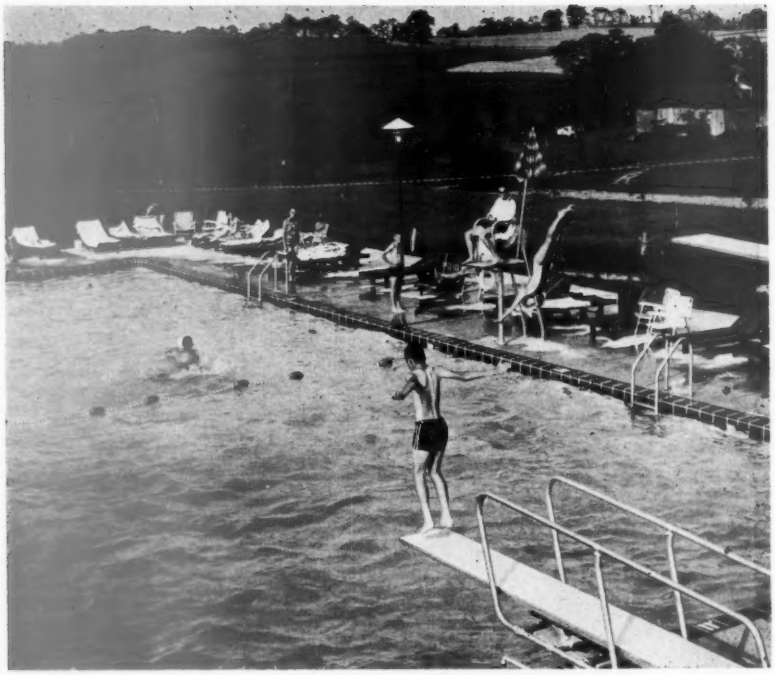
The SCS was again consulted, and a pond was laid out between the fifth and sixth fairways. This pond provided both a water supply and esthetic appeal. A clubhouse was built on the knoll overlooking the golf course and provides a splendid view of the valley below, thus suggesting a fitting name, Valley View Golf Club.

Conservation still needed

The recreational demand increased so rapidly that in 1962 a swim club was organized, and an olympic pool was built for community membership. In 1965 Bill and Dick added the second nine-hole course covering the original contour strips laid out 19 years before. With SCS help, two more ponds were laid out. Part of the area once in grain crops and now in meadow was converted to a bluegrass and fescue mixture for hard usage on the fairways, a fine bent grass for the greens, and a mixture of trees and grass for the open areas between the fairways. All trees and shrubs are located with an eye for beauty as well as utility, and a planting of some 10,000 mixed varieties of pine for "rough" use was made in April 1966.

The change from agriculture to recreation has greatly increased

Visitors tee off at the first hole of Valley View Golf Club on the George farm.



Area residents enjoy the olympic-size pool west of the new nine-hole golf course.

the need for good conservation measures. Drainage practices call for removal of excess water in a few hours rather than a few days. The novel idea of spruce for markers along the fairways and as a measure of distance to the greens makes new uses of trees which had never been previously considered. All of the land is protected by either grass or trees.

Sitting in his new home and discussing the entire operation, Dick remarked, "You know, we had 26 people employed here most of last summer, and the net income is more than 5 times what it was when we were kids. Who would have thought that that many people would ever have been working on this old farm?"

As to the future, who knows? Dick says it is very possible the remaining cropland, meadow, and pasture, used primarily to supply a flock of sheep, may someday be used for additional recreational enterprises. This farm is an outstanding example of how a successful recreational enterprise calls for even greater use of good soil and water conservation measures. ♦

Scouts Honored for Conservation

CLIMAXING a conservation program involving some 5½ million Boy Scouts and 300,000 acres of council-owned camp lands, the 1966 U.S. Department of Agriculture Council Conservation Awards are being presented at regional ceremonies to winning Boy Scout councils throughout the country.

Highest honors, the USDA Gold Seal Award, went to Theodore Roosevelt Council of Phoenix, Ariz., which will receive the citation on November 11 in Honolulu, Hawaii, at the Region 12 meeting.

First of the 12 Green Seal Council Conservation Awards to BSA regional winners was made in Dallas on May 19 to Indian Nations Council from Tulsa, Okla. Texas State Conservationist H. N. Smith presented the award during the National BSA council meeting.

Green Seal Awards ceremonies have also taken place for Kansas City Area Council, Kansas City, Mo.; Yellowstone Valley Council, Billings, Mont.; and Great Plains Area Council, Minot, N. Dak.

The remaining eight Green Seal Awards will be made during regional meetings in October and November. Winners include Pioneer Valley Council, West Springfield, Mass.; Nassau County Council, Roslyn, Long Island, N. Y.; Allegheny Council, Pittsburgh, Pa.; Mountaineer Area Council, Fairmont, W. Va.; Istrouma Area Council, Baton Rouge, La.; Sunny Land Council, Sarasota, Fla.; Potowatomie Area Council, Waukesha, Wis.; and Catalina Council, Tucson, Ariz.

All but two of the winning councils specifically cited the Soil Conservation Service for help in planning the conservation programs for the camp property. Among the projects undertaken by the 13 winning councils were erosion control, stream improvement, wildlife habitat management, tree and grass planting, and trail building.

Boy Scout leaders have enthusiastically endorsed the annual USDA Council Conservation Awards as an incentive to a realistic interest in resource conservation and development.

With the more than 800 campsites owned by Boy Scout councils serving as outdoor conservation laboratories, the Scouts are able to participate in practical work experiences as well as to receive on-the-ground training in land management and resource use planning. As they work, they learn that conservation and planning are the keys to natural beauty in America. ♦

Soil Test

If a chemical soil test is to be of any value, a soil sample must represent a substantial area.

Water fun for everyone . . .

Small Watershed Lakes Meet Recreation Demand

Ralph C. Wilson
Recreation Specialist, Watershed Planning Division, SCS, Washington, D. C.

WHEN our forefathers included in the Bill of Rights a provision guaranteeing us the right to "the pursuit of happiness," they undoubtedly never dreamed that this "pursuit" would, less than 200 years later, turn into a mad "stampede."

Caught up in this stampede—and spurred on by more leisure time, more spendable income, and more mobility—people throughout America are seeking recreation, particularly in the out-of-doors, in ever-increasing numbers. As a result, existing public recreation areas and facilities in many parts of the Nation have become seriously overcrowded. The demand for water-oriented outdoor recreation, such as swimming, boating, fishing, water skiing, and camping, has been especially heavy.

Small watershed projects under the Watershed Protection and Flood Prevention Act (Public Law 566) are proving to be one of the most effective ways to meet the demand for more public water-based recreation facilities.

Development of recreation facilities on the small lakes created by floodwater-retarding structures was accelerated by the amendment of the Act in 1962 to allow the Federal Government to give technical and financial help to project sponsors for this purpose.

The Federal Government may now pay up to 50 percent of the costs of enlarging dams for public recreational use; acquiring land easements, and rights-of-way for the larger reservoir and adjacent land; and for construction of minimum basic facilities needed for public health and safety, access to, and enjoyment of the recreation area.

Since 1963, the first year the recreation provision of the Watershed Act was made available, a total of 95 public recreation de-

A family outing at one of the picnic sites developed by the Forest Service above a flood-prevention impoundment built by SCS in the Potomac Valley Soil Conservation District.

velopments in 81 different watershed projects in 31 States have been approved for operations.

When completed, these developments are expected to provide more than 5 million user-days of water-based recreation each year. This represents a financial investment of almost $39 million for recreation, with the Federal Government paying about $19 million and local sponsoring organizations the other $20 million.

In addition to the recreation facilities already completed or under construction, another 72 developments in 61 projects in 25 States have received preliminary approval and are now in various stages of planning.

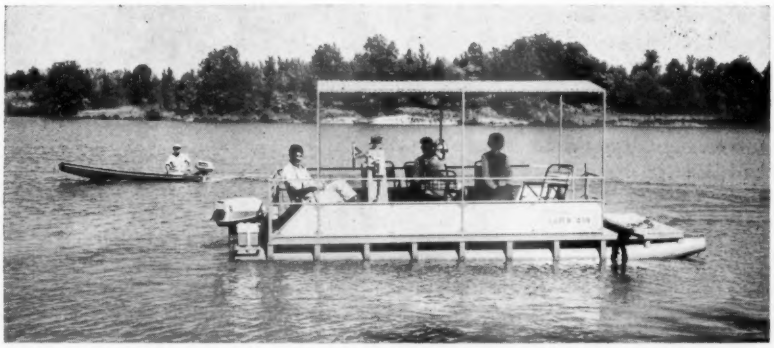
In still another 28 projects, Federal cost-sharing has been approved for enlarging the dams for recreational purposes, although no additional land or facilities for recreation are involved.

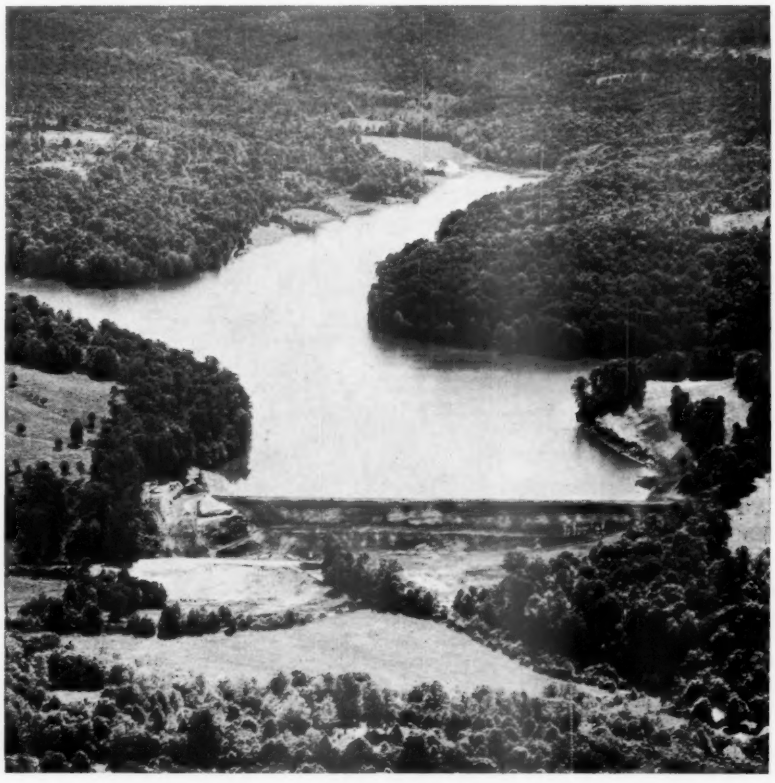
The local sponsors

Local sponsoring organizations include State agencies, municipal and county governments, soil and water conservation districts, conservancy districts, and others so authorized by the State Government.

In Kentucky's Mud River Watershed Project, the State Department of Fish and Wildlife Resources is sponsoring the recreation phase of the project to serve the needs of an estimated half million visitors annually.

One of the project's 26 flood-detention reservoirs was enlarged to create an 826-acre lake. Together with a 300-acre State park which has been developed on a portion of the shoreline, facilities are avail-





Girl Scouts (top) engage in waterfront activities at Camp Echoee in the Sautee Creek watershed, Georgia. In the Caney Creek watershed, Arkansas, the ladies enjoy a tranquil day as a fisherman passes in the background. An aerial view (below) shows a typical small watershed lake in the French Lick watershed, Indiana.

A water skier finds a lake in the Caney Creek watershed, Arkansas, to his liking. A bathing beach where none existed before now attracts visitors to a flood-prevention site in the George Washington National Forest, West Virginia.

able for swimming, fishing, boating, water skiing, hiking, picnicking, and camping. On 1 recent weekend more than 700 Boy Scouts walked the park's 20 miles of scenic hiking trails.

Tourists, attracted by the new lake and its recreation facilities, are adding greatly to the local economy, which in the past has depended primarily on agriculture.

Birch Lake, a flood-detention reservoir in Wisconsin's Twin Parks Watershed Project located 1 mile north of the town of Barneveld, provides swimming and fishing for hundreds of people each summer. Prior to construction of the reservoir, swimmers had to travel to another town 10 miles away.

Boy Scouts from Madison and Barneveld use Birch Lake for cookouts and for conservation projects, such as construction of nature trails and revegetation of streambanks. More than 200 anglers were present on opening day this year when the lake was opened for trout fishing for the first time.

Fishing and boating

The people of Plentywood, Mont., are enjoying their third year of fishing and boating on a 90-acre multi-purpose lake in the Box Elder Creek watershed.

Under the joint sponsorship of the Sheridan County Soil and Water Conservation District, the reservoir provides storage capacity for both flood prevention and recreation and is stocked with trout by the Montana Fish and Game Department. Picnic tables, a boat launching ramp, and sanitary facilities now being added should make the development an even more popular spot in the years ahead.

A recently completed multiple-purpose reservoir (flood prevention and recreation) in the Spaulding Pond Brook watershed in Connecticut provides the only public bathing area for the residents of Norwich and adjoining towns.

Several thousand bathers daily use the pool and surrounding area. The city of Norwich also conducts swimming classes and has provided picnicking facilities nearby.

The Colorado Game, Fish, and Parks Department cost-shared the recreation pool and supervises the fishing, swimming, boating, water skiing, camping, and picknicking activities at the 500-acre Ramah Reservoir in the Big Sandy Creek watershed, Colorado.

With more than 50,000 visitors annually, recreational benefits at the reservoir are exceeding the average annual costs of the entire watershed project, which includes 13 floodwater-retarding dams in addition to the Ramah multi-purpose reservoir.

For use of groups

Although private groups such as churches, youth organizations, civic and service groups, sportsmen's clubs, and the like, are not eligible for cost-sharing assistance, they may receive technical help from the Soil Conservation Service in planning recreational facilities in and around the small watershed lakes.

Many private groups have recognized and taken advantage of the recreation potential of watershed lakes. A number of groups have granted easements to build dams on their property and paid the additional costs to enlarge the dams for recreational purposes.

For example, the Tennessee-Arkansas-Mississippi Council of Girl Scouts is sponsoring the recreation development around one of the reservoirs in Tennessee's Porters Creek Watershed Project as a permanent summer camping area for the council's 9,000 Scouts.

The council owned 1,200 acres on which a watershed flood-detention dam was to be built. The council granted an easement to build the dam on its property and paid $56,000 to enlarge it for recreational purposes.

How financed

How was it financed? Through the sale of more than 300,000 boxes of cookies by Girl Scouts in the 3 States!

When completed, the camp will house more than 500 girls and their counselors at one time.

The Quivira Boy Scout Council in Kansas has contributed about $110,000 toward the acquisition of land and additional costs involved in the construction of a 400-acre multiple-purpose reservoir which is the focal point of the 2,800-acre Quivira Scout Ranch.

Seven separate camps have been established around the lake to serve 15,000 boys in the council area. The lake serves all aquatic activities, including swimming, life saving, sailing, canoeing, and fishing.

In addition to the broad social and individual benefits recreation developments produce, they also bring about desirable economic benefits. They enhance community values by creating a better place to live and increasing land values. Often, public recreation areas that draw people from a considerable distance create a demand for new services and businesses that aid in boosting the local economy.

Some 8,000 small watersheds throughout the United States still need project action to solve land and water problems. Several thousands of these projects have potentials for recreation developments.

Indications are strong that, for a long time yet to come, recreation developments in multiple-purpose small watershed projects will continue to play a vital role in meeting the Nation's growing recreation needs. ♦

Outlook for Farm Co-ops Discussed

USDA will join with local farmer-owned cooperative businesses across the Nation in observing October as "Cooperative Month."

Vice President Humphrey has been invited to open the first of a series of conferences at USDA, scheduled to begin on October 3, to discuss many aspects of progress and opportunities of the Nation's cooperatives.

Speakers and panel participants at these meetings and others throughout the country will stress the impact cooperatives have had in many areas of the economy and explore their opportunities for increasing social and economic services to people in the United States and other countries.

Eleven Federal agencies are joining with cooperatives in the observance, and Governors of as many as 35 States are expected to issue proclamations in recognition of Cooperative Month.

Denmark has been invited to present an exhibit in the USDA patio of the 100th anniversary of cooperatives in that country.

In addition, cooperatives in many States are planning programs during October, ranging from workshops to open house days at co-op facilities.

Since enactment of the Cooperative Marketing Act 40 years ago, USDA has worked closely with rural interests to aid the development and growth of strong local farmer cooperatives. The Farmer Cooperative Service has leadership in this activity. ♦

Field Evaluation Plantings

Field evaluation plantings of grass-clover mixtures on poor soils in western Oregon by the SCS plant materials center at Corvallis promise to find a combination that will succeed on soils presently regarded as nearly worthless.

Local Environment for Recreation

By Louis F. Twardzik
Associate Professor, Park and Recreation Administration and Recreation Specialist, Cooperative Extension Service, Michigan State University, East Lansing, Mich.

IN HIS QUEST for material prosperity, man has reshaped his environment without giving much consideration to the spiritual or esthetic values of life.

A number of national programs are now being implemented which objectively place the improvement of man's environment in high and equal priority with other national goals. The programs are called variously, the "New Conservation," "Natural Beauty," "Quality Environment," and "Creative Conservation." This new approach is encouraging.

But, obviously, enlightened national or State policy in itself will not produce desired effects or goals. It will remain the work of local leadership to determine the ultimate usefulness of these programs.

A serious fault

One of the more serious misinterpretations of creative conservation and the quality environment is emphasis at the local level on equating these terms exclusively with economic gains. The essence of these new national programs is that our natural and community resources now need to be also utilized for improving the quality of day-to-day life, of the environment, for people in the rural community.

Mrs. Johnson is not planting flowers and trees all across the United States to increase the gross national product. But this is precisely how some local leaders use these new programs, as additional devices for attaining immediate economic gains, usually through programs to attract seasonal tourists.

How many tree planting and beautification programs in rural communities include all the streets of the town as compared to those that improve only main tourist routes? How many recreational areas are being located, designed, and developed in rural communities for the people of the community and how many for the visitors to the community? Accessibility of the area to the residents, their preferences and needs, are important factors in determining the type, amount, and location of recreational areas and programs in urban areas. They are not always prime considerations in rural areas.

The intent of the new programs of beauty and environment is not to provide short range economic gains to a community, but rather to improve the overall living conditions for its residents. If this premise stands in local areas, then the more attractive communities, and the kind of leadership that made them so, will begin to attract, as well as retain, more people, more industry.

It seems that too many community leaders think of their areas as prime resort areas; few are. The dollars left behind by seasonal tourists do not by themselves reflect the meaning of President Johnson's comments about "the dignity of man's spirit." Nor will they by themselves lay the foundation for an area that will attract "new people and industries," referred to by Secretary Freeman.

Where local leadership takes a hard look and then begins to plan and develop the rural community on the basis of serving its people with a quality environment, in meeting the recreation and beauty needs of its residents, stable economic gains are more apt to follow. Let's look to all of our streets, not just the main street; let's plan quality neighborhood parks and playgrounds and not accept a few swings and slides on a school lot as being adequate.

A larger commitment

Farm income-producing recreation enterprises are growing in number and importance. It has to be assumed that during the next decade a significant number of these farm enterprises will survive as successful recreation operations. But this is only one part of a program to change and protect the quality of the rural environment. There surely is a larger commitment by local leaders to follow through on creating a total community environment for those who live in rural areas—not because of extra income, but because it is a level of life that rural residents deserve, as do the people who live in urban areas.

During the postwar period of the mid-1940's, many of these amenities came to rural areas as they accepted more and more of the overflow of urban centers. With the increasing population and the subsequent economic linkages, the traditional county park and recreation departments were established as public agencies. As recognized public agencies, comparable to the county health department and county department of roads, the park and recreation agency employed people professionally trained in parks and recreation to fulfill these responsibilities.

However, this seldom occurred in the sparsely settled counties. Instead, a variety of administrative arrangements were made be-

tween county road commissions and school districts and volunteer groups, often with a patchwork of budgets and transferring of funds to take care of sudden needs, installing more picnic tables, oiling a dusty road, or purchasing playground equipment.

Districts can help

It's a time of change, and there is a need to discover better ways to provide for these changes. If the older institutional forms are not working as needed, why not make alternative arrangements? Why shouldn't the soil conservation districts as governmental entities assume the responsibility for providing park and recreation opportunities and the quality environment in rural areas?

SCS Administrator D. A. Williams, in commenting recently on a report of the Special Committee on District Outlook of the National Association of Soil and Water Conservation Districts, said that there is a need for local, legal bodies to represent all the people, involve all the people, all the community interests, and accept and carry out responsibilities in connection with resource programs and projects. He added that "the committee believes that soil and water conservation districts can be the directing and coordinating bodies to perform these functions at the local level."

And why not? Local leadership in rural areas throughout the country is represented by 3,000 legal entities, the soil and water conservation districts. Obviously, an interest in parks, recreation, and natural beauty already exists within many districts. The only comprehensive nationwide inventory of farm recreation enterprises was completed by the National Association of Soil and Water Conservation District last year; and this year, the Soil Conservation Service is taking leadership in preparing for a nationwide appraisal of potential for outdoor recreation development by counties.

Of course, some of these community park and recreation responsibilities differ vastly from those requiring an expertise in terracing and erosion control and will in addition require change in outlook and technical competence in the districts and those agencies that assist them. But the districts represent local leadership, they are governmental units, and they have a traditional commitment to resource development. This is the time for a change in local recreation, as a service for people who live in rural areas. This change has already taken place at the national level and in many States. Possibly the answer to this local need is for soil and water conservation districts to become more actively involved in providing for parks, recreation, and natural beauty. ♦

Recreation Forum on Man and Nature

THE National Recreation and Park Congress, which will be held in Washington, D. C., October 9 to 13, will have as its theme, "Great Things for Humanity." More than 3,000 national, State, county, and community recreation and park leaders are expected to attend.

Among top Government officials scheduled to speak are Orville L. Freeman, Secretary of Agriculture; Stewart L. Udall, Secretary of the Interior; and Robert C. Weaver, Secretary of Housing and Urban Development. Laurance S. Rockefeller, President of the National Recreation and Park Association, will be the keynote speaker at the opening general session, Monday morning, October 10.

The National Recreation and Park Association, sponsor of the Congress, was formed in August 1965 as a result of recognition that sweeping social changes and increasing demands of an expanding population called for more imaginative and closer cooperative effort among leaders in recreation, parks, and conservation.

Four well-established national organizations joined with the National Recreation Association to form the new group: The American Institute of Park Executives; American Recreation Society; American Association of Zoological Parks and Aquariums; and National Conference on State Parks.

NRPA is a nonprofit, educational, and public service organization. Its goals are:

(1) To help preserve the balance between nature and man to allow him to live harmoniously with his surroundings both in the city and in the countryside;

(2) To help communities, States, and the Federal Government provide opportunities for recreation and enjoyment of the natural environment for our growing population;

(3) To help all Americans develop a productive outlook and philosophy for the use of leisure time.

Commenting on the formation of NRPA, Laurance Rockefeller said recently that, "The establishment of this Association gives the broad recreation and park field a solid front, one voice, and the unity of purpose to move forward."

Rockefeller and James H. Evans, Chairman of NRPA's Board of Trustees, also serve on the 12-man Citizens Advisory Committee on Recreation and Natural Beauty which will advise President Johnson and his recently appointed Council on Recreation and Natural Beauty. Mr. Rockefeller is chairman of the committee.

Completed RAD Projects

Completion of 3,702 Rural Areas Development projects during 12 months ending August 1 brought the total of RAD projects to 11,791. ♦

Say goodby to ditches . . . .

Sprinklers Save Water, Time, and Soil on Colorado Ranch

"DITCH irrigating is a waste of time; sprinklers are the thing for this type of country," says a Colorado ranch manager. And he has the results to back up his opinion.

C. E. "Al" Allen, manager of the J Bar L Registered Hereford Ranch at Basalt, Colo., began replacing his ditch irrigation system with sprinklers 4 years ago.

The system has reduced manhours needed for irrigation by more than 80 percent and eliminated costly maintenance of 3 miles of ditches. Fields are easier to work without the ditches, and Allen says new seedings are established in about one-third the time. The new system requires only two-fifths of the water previously needed, thus increasing efficiency of water used by 250 percent.

The J Bar L Ranch, owned by Dr. John Schweppe, lies in a picturesque mountain valley at 8,200 feet elevation. Originally homesteaded in 1872, the 600-acre ranch depends on Taylor Creek for irrigation water. The stream has a good flow during the spring thaw, but the flow drops off rapidly about mid-June. Ground faults are common in this area, and some cut across Taylor Creek near the meadows. The reduced flow is not enough to get across the faults, and most of the water disappears into the ground.

The loamy soils absorb water fast, and water loss in ditches was high. The steeply sloping fields, common in the mountain areas, eroded easily and were hard to flood irrigate. The combination of short-growing season, undependable water, and high water intake rate severely limited productivity. Something had to be done to assure adequate feed for the cow herd.

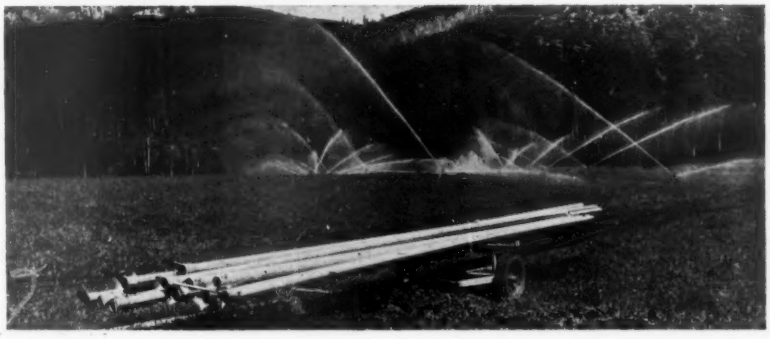
In 1962, Soil Conservation Service technicians, assisting the Mt. Sopris Soil Conservation District, helped Allen develop a sprinkler system as part of his conservation plan. The system has more than a mile of buried 8-inch steel pipe. About half of the pipe was used to change the point of diversion upstream to intercept the water before it reached the faults. Almost 6,000 feet of 4-inch aluminum pipe distributes the water from the 8 hydrants to 94 sprinkler heads. This permits irrigation of up to 13 acres a day. More than 200 feet of fall from the automatic screener to the first hydrant provides adequate pressure.

The entire system, including tees, elbows, valves, and screener, cost about $32,000 installed. The Agricultural Conservation Program shared the cost of the structures and buried pipe.

In applying his soil and water conservation plan, 3 acres of rangeland has been reseeded, one spring has been developed by building a collection basin and trough, and the pastures have been divided so that the grazing can be better controlled. Seepy meadow areas are gone. Even high, formerly dry areas get ample water.

The J Bar L has a permit to graze cattle on National Forest lands. Next year deferred rotation grazing will be started on these lands to improve the range condition. This overall conservation program has provided for 28 more cattle to this time.—CHARLES J. MALONE, *Range Conservationist, SCS, Glenwood Springs, Colo.* ♦

Allen's homemade trailer makes it easy to move 40-foot sections of aluminum pipe around for sprinkler irrigation of meadowland at the J Bar L.



Conservation a Tradition With Dakota Family

THE PRACTICE of soil and water conservation is a long-time tradition in the Stanley J. Jensen family on their farm in the Lincoln Soil and Water Conservation District, South Dakota.

The majestic trees of the 30-year-old farmstead windbreak are evidence of it. The windbreak, in addition to protection and comfort, provides a beautiful setting for the Jensen home.

Stan Jensen's father, James, started contour farming in the mid-1930's. The practice was new in that area in those days, and the landowners of the community wondered about it. More and more of them followed the example of the elder Jensen. Contour farming is an accepted way in the area now.

The son, Stanley, is an enthusiastic cooperator with the Lincoln District. He is making fast progress in applying complete soil and water conservation.

In 1958 he started terracing a 96-acre field. He added more terracing each year. In 1965 he built two parallel terraces and observed that, during a 4-inch rain, no runoff left the field.

Grass, legumes, and livestock are key elements in the Jensen operation. Jensen rotates bromegrass and alfalfa with corn and soybeans.

He grazes the bromegrass-alfalfa pastures 2 weeks and rests them 4. He cuts hay from 1 pasture early in the season. A recent cutting from 14 acres produced 1,620 70-pound bales, and 84 cows later grazed the pasture.

In 1958 Jensen established a wildlife area near a stock pond. The cover and food have increased the pheasant population. Deer, too, are a common sight on the farm.

Mrs. Jensen values the wildlife area for still another reason. The Nanking cherries make a tasty jelly. Mrs. Jensen, who once was

A protected wildlife area adjoins the stock pond at the edge of a tame pasture on the Jensen farm. The owner shows then SCS Area Conservationist Palmer Skalland a Nanking cherry tree planted for cover.

The Jensen cattle thrive on well-managed bromegrass and alfalfa pastures. Skalland (left), and Stanley Jensen, are pleased with the results. Contour cultivation (below) has been the practice on the Jensen farm for more than a generation.

Stanley Jensen was himself a youngster when his father planted the farmstead windbreak. His own family enjoys its beauty and protection.

employed as a secretary by the Soil Conservation Service in Idaho, has a more than ordinary interest in the soil conservation plan they are applying.

Stan Jensen's enthusiasm in the field of soil and water conservation figures in his work as a member of the State Agricultural Stabilization and Conservation Committee which administers the Agricultural Conservation Program in South Dakota. He also is active in the South Dakota Crop Improvement Association and in his Rural Electrification Cooperative. He serves on the local school board and on the board for his church. ♦

Mississippi Cattle Thrive on Bahiagrass and Woodland Forage

By David W. Sanders
Range Conservationist, SCS, Hattiesburg, Miss.

IN the longleaf-slash pine area of south Mississippi, many livestock farmers can't see the grass for the trees.

Not so with Virgil Stockstill and his wife who have a 320-acre woodland-livestock farm in northwest Hancock County. The Stockstills, cooperators with the Hancock County Soil Conservation District, have 27 acres of bahiagrass and 290 acres of well-managed longleaf and slash pine, of which 100 acres is fenced.

Stockstill is a "part-time" farmer, so Mrs. Stockstill spends much of her time looking after the livestock. The Stockstills keep 25 to 30 brood cows. Their management system consists of grazing the bahiagrass pastures during the growing season, using the woodlands to supply additional forage as needed. The woodland forage is also used while they get a cutting of bahiagrass hay in late summer.

Mr. Stockstill usually winters his livestock in the woods and supplements their diet with cottonseed meal and salt. He also feeds a mixture of hay and ground corn to the cows with calves.

Stockstill controls his breeding to take advantage of the lush grass

A group of Mississippi cows grazing on native woodland forage.

period starting in April. The calves are dropped in January and February and are at least 6 weeks old before grass greens up in the spring. This enables him to sell a good heavy calf about the middle of August and gives the cows time to gain weight before winter. When this type of breeding program is completely established, it will eliminate the cost of extra feed needed for cows with young calves during the winter.

"I wouldn't be able to carry over 12 brood cows if it weren't for my woodland forage," Stockstill says of his system. He believes in using his land to the maximum, but not to the extent of impairing its productivity. He practices proper grazing of both woodlands and pastures.

He also manages his woodland on a selective cutting basis. He sells pulpwood if a thinning is needed, but leaves the best trees so they can be sold later for high quality poles.

This is one example of how landowners are using woodland forage to supplement their grazing program in southern Mississippi. This is an area where, quite literally, you shouldn't overlook the grass while you watch the pine trees grow to maturity. ♦

Two New RC&D Projects Authorized

TWO NEW Resource Conservation and Development Projects recently were authorized for Federal assistance in operations. They are the Tradewater River Area RC&D Project, Kentucky, and the Cherokee Hills RC&D Project, Oklahoma.

Tradewater River Area, Ky.

The Tradewater River Area RC &D Project covers 1,718,400 acres in the 6 Kentucky counties of Caldwell, Christian, Crittenden, Hopkins, Union, and Webster. This area is predominantly rural, with a population of around 146,000. The major part of the area is in cropland, woodland, and pasture, and more than half of the cropland has a water-erosion problem. Coal is strip-mined in 5 counties, and mining operations are increasing.

The primary objective is to broaden economic opportunities in the area by better water management, erosion control, flood protection, and community improvements.

Sponsors of the project are the six local soil conservation districts. They expect to receive assistance from three Federal departments, nine State departments, and the University of Kentucky.

Over the next 15 years, the benefits from structural installations and land-treatment measures are expected to amount to $20 million. Activities stimulated by the project during this period are expected to provide additional continuous employment for 3,000 people.

The plan provides for acceleration of soil surveys, conservation planning and land use adjustment, forest management and marketing, roadbank stabilization, and strip-mine area treatment.

Among the 140 other measures planned are small watershed projects covering 40 percent of the entire area, public water supply measures, industrial and educational planning, sewage disposal systems, and recreational and health developments.

Some of the current action or plans for the immediate future are: Hern-Henshaw and Kenneth Roberts agricultural water-management improvements, flood-prevention developments on Owens Creek and Muddy Fork Creek, a county-wide water district for Union County, an alfalfa pelleting mill for the town of Fredonia, sewage disposal facilities for the city of Marion, and a recreation center and housing development for the city of Providence.

Cherokee Hills, Okla.

Sponsored by the Adair, Cherokee, and Delaware County soil and water conservation districts, the Cherokee Hills RC&D Project lies in the heart of the Ozark Highlands, an area rich in Cherokee Indian history.

It covers 1,325,400 acres of rolling hills and valleys in Adair, Cherokee, and Delaware counties. More than 67 percent of the project area is in forest land, 70 percent of which is in small private ownership. About 28 percent is in cropland and pastureland.

Objectives of the project are to help achieve desired beneficial economic and environmental changes by: (1) Accelerating the pastureland program through revegetation of former cropland areas; (2) providing land treatment to prevent erosion of soil and excessive runoff of water; (3) encouraging development and location of industry in the area; (4) developing recreation and tourist facilities; (5) improving woodland income; (6) upgrading housing; and (7) promoting training programs for the underprivileged.

Some of the planned measures are: Accelerated conservation treatment on 195,000 acres of land; completion of one Public Law 566 small watershed project and installation of other water management and water control structures; improved recreation and fish and wildlife habitat through stream development, hunting areas, and historic developments; installation or expansion of hardwood market, gravel industry, livestock market, cold storage facilities, and fish and poultry processing plants; and expansion of community facilities such as parks, fairgrounds, and water and sewage facilities. ♦

CONSERVATION PROFILE

Sam Tsukamoto

California

Japanese-American serves his neighbors and district

A STRAWBERRY GROWER near the State Capital of California has been a driving force behind his Nisei neighbors' enlistment in the soil and water conservation program.

Sam Tsukamoto served on the organizing committee of the Florin Soil Conservation District and has been a director for most of the 13 years of the district's history.

The Florin District, comprising 90,000 acres, south of Sacramento, contains many truck farms operated by Japanese Americans. They recognize Tsukamoto as a conservation farmer, and his bilingual abilities make him an asset to the district board.

Sam Tsukamoto provides leadership between members of the Japanese-American community and the district to insure total soil and water conservation, including wildlife and beauty.

Economic pressures from nearness to a large city have made land a premium. Because of this, land-leveling practices and irrigation brought all possible areas with suitable soil into production, destroying wildlife habitat.

Seven years ago, the district started an active wildlife habitat program and to date has been instrumental in getting 45,000 plants on 136 farms. About 116 acres has been set aside, fenced, and planted to provide wildlife cover and food. Pheasant, quail, and cottontail rabbits have been placed in these areas by the State Department of Fish and Game under district sponsorship.

The land in the Florin District historically abounded in small game, but during the 1950's and early 1960's, clean cultivation of all the land literally destroyed their habitat. Truck farming operations where all land is double or triple cropped contributed to their destruction.

The district's wildlife habitat program of odd-area planting, fence and hedgerow planting, special food and cover areas, and selected site reservations is bringing wildlife back. Natural beauty is improved with every wildlife planting. Fruit and seed bearing plants, such as Christmas berry, quail brush, fire thorn, vetch, and millet, enhance the landscape while giving food and escape cover to small game and birds.

John Mensch, chairman, and the only remaining member of the original district board, says, "Soil conservation districts were new in California when the district was formed. In those days the organizing committee had a difficult job. Without Sam Tsukamoto, the district might never have been formed or progressed to its present stage."

Mr. Tsukamoto, who is quiet, but effective; soft spoken, yet out-spoken when necessary; and a devoted family man as well as a community leader has worked hard and faithfully to make soil and water conservation in his community a common interest of all the people.

In addition to serving as a director for the Florin District, he is a member of the California Farm Bureau, treasurer of Florin Athletic Club, auditor for the Florin Buddhist Church, and active in youth welfare work. ♦

Study to Predict Accurate Water Yields

Under a $57,076 research contract sponsored by USDA's Agricultural Research Service, scientists of the University of Georgia, Athens, will make a detailed 2½-year study of the influence of environment on floods and water yields in agricultural watersheds of the Southern Coastal Plains region.

Dr. Thomas H. Rogers, head of the University's Agronomy Department, will lead the project; John C. Stephens will represent ARS.

The purpose is first to examine flooding and water-yielding factors —geology, soils, slopes, plant cover, and drainage networks—of a 20.5-square-mile agricultural watershed in Turner County; analyze the characteristics by computer; determine the relationships between all elements affecting a watershed's hydrology; and then test the findings on a 145-square-mile agricultural watershed in Tift, Turner, and Worth counties.

Relationships between the elements under analysis also will be tested on a 3-square-mile urban site adjacent to the larger watershed; the smaller area will furnish a comparison between urban and agricultural land use conditions. ♦

Nematode Killer

Ordinary sugar mixed into soil acts as an effective killer of nematodes, the Agricultural Research Service has announced.

Rural Recreation for Profit. By Clodus R. Smith, Lloyd E. Partain, and James R. Champlin. *1966. Interstate Printers and Publishers, Inc., Danville, Ill. 303 pp., illus. $6.95.*

Rural Recreation for Profit is written for rural landowners and others concerned with income-producing recreation on rural lands. It is a practical guide for identifying, planning, developing, operating, and managing rural recreation enterprises.

Basic requirements, demand analysis, and the economic possibilities for different enterprises are discussed. Examples are used to show some ranges of investment and operating costs.

The book covers vacation farms and ranches, campgrounds, picnic and sports areas, fishing waters, hunting areas, shooting preserves, and scenic, historic, and nature areas. Sources of available information or guides on the different types of enterprises are given in the bibliography of each chapter.

Chapters are devoted to selecting, planning and developing, and merchandising rural recreation activities. Management, operation, and maintenance are discussed in a frank, forthright manner. The potential entrepreneur is advised to consider rural recreation as a business venture which demands careful planning, financing, and know-how.

Although written primarily for persons interested in rural recreation enterprises, the book will serve as a good reference source for resource conservation personnel, investment advisers, and others working with rural people on income-producing recreation.— Minott Silliman, Jr., *Resource Development Division, SCS, Washington, D. C.*

New Publications

Potomac Valley. Preliminary Report of the Recreation and Landscape Sub-Task Force of the Federal Interdepartmental Task Force on the Potomac. *1966. U. S. Dept. of the Interior. 80 pp., illus. (⅓ folio). $3.00.* This is the first of the reports from the four sub-task forces charged with spelling out the details of proposals for the President's plan to make the Potomac Basin "a model of scenic and recreational values," first revealed in broad outline in the *Potomac Interim Report to the President (Soil Conservation,* March 1966).

Like the interim report from the general task force, this one offers "information and suggestions," not final plans. Detailed drawings and charts, and lavish illustrations, provide a wealth of detail about the participating agencies' thinking, especially regarding the proposed Potomac Valley Park reaching from the river's mouth to Cumberland, Md.

The three other sub-task forces are on Soil Erosion and Sedimentation, Water Quality and Pollution Abatement, and Water Supply and Flood Control. The Secretary of the Interior is expected to make his final report to the President in January 1967.

Fish, Wildlife, and Pesticides. *1966. U. S. Dept. Interior. 12 pp., illus. $0.10.* Study of the spread of some pesticidal chemicals through the environments of humans and fish and wildlife and recommendations for their control.

"There has been no Silent Spring—yet. The frogs croak their love songs, the wild geese fly north on schedule, and the salmon splash their way upstream into the shallows to spawn. Perhaps Rachel Carson's widely read, widely praised, and sometimes denounced 'Silent Spring' helped to keep it from happening.

"It is reasonable and necessary to accept *controlled* use of chemicals for crop and livestock pests and for protection of human health from parasite-carrying animals.

"It is humane and proper to argue against pollution of our world and damage to the living resources—wild fish, birds, and mammals—we need and enjoy."—Foreword.

Pollution-Caused Fish Kills in 1965. *1966. U. S. Dept. Interior. 28 pp., illus. $0.25.*

Urban Sediment Can Be Controlled. *1966. 40 pp., illus. Interstate Commission on the Potomac River Basin Proceedings 1966–1, Winter Public Meeting, College Park, Md., February 17–18.* Contains papers on three panels: "The Role of Government and Industry in Sediment Control," "Managing the Land to Control Sediment," and "Interstate Interests." The papers discuss experiences and needs in curbing a major pollutant of the Potomac River and the streams that feed it.

Federal Programs for Individual and Community Advancement. *1966. USDA Agr. Hbk. 312. 53 pp.* Lists Federal programs that can aid residents of towns and small cities to create, in their localities, the same broad range of job opportunities, public services, and cultural facilities that are available to people in urban centers.

Equipment for Applying Soil Pesticides. By O. K. Hedden, J. D. Wilson, and J. P. Sleesman. *1966. USDA Agr. Hbk. 297. 37 pp., illus. $0.20.* Covers construction materials, applicators, methods for controlling application rates and cleaning the applicators, and gives selected references and a pesticide chemical key.

Year-Round Fun on Farm and Forest. *1966. USDA PA–720. Illus., folder.* Short descriptions of responsibilities of agencies in USDA for recreation and some of the publications on the subject (includes order blank).

Repair of Cracks in Concrete Channel Linings. By Robert J. Reginato and Lloyd E. Myers. *1966. USDA ARS 41–121. 8 pp.* Describes method for rapid repair of cracks by using commercial power equipment.

An Outline for Teaching Conservation in Elementary Schools. *1966. USDA PA–268. 14 pp.* A slight revision of the 1955 edition, bringing up to date the addresses of the State offices and completely updating the list of references.

Water Use

A survey of middle-income homes throughout the U. S. indicated that smaller amounts of water are used per person in the humid East than in other parts of the country. The amount used by each member of the family ranged from 27 to 75 gallons a day in the East to more than 200 gallons a day in the West. ♦

From the Administrator:

SCS Responsibility in Outdoor Recreation

CONSERVATION and wise use of soil, water, and related natural resources were never of greater importance than today. As competition for land becomes keener, choices between uses become more difficult for land owners and operators.

One of the growing demands on land and water resources is created by the vast interests in outdoor recreation. If the Nation's needs for recreation are to be met, much private land must be used, and owners must be able to earn reasonable returns on their investments.

Farmers and ranchers have been using some of their land and water for recreational purposes for many years in accordance with well-developed conservation plans.

In 1962 some degree of urgency was given to rural recreation by Congressional and administrative actions that broadened the responsibility of the Soil Conservation Service.

Recreation became an alternative use of land to be considered in the assistance made available to private land owners through soil and water conservation districts.

Accordingly, the Soil Conservation Service assumed a broader role in resource development and a new responsibility in its technical assistance program of soil and water conservation. The SCS technician, in his work with individual land owners and groups, now must consider many alternatives in the proper conservation and wise use of land, water, and related resources.

Some of these are:

(1) Suitability of available land and water for recreation.

(2) Technical help in planning appropriate use and treatment of land and water for various recreation enterprises and facilities.

(3) Appropriate economic information involved in the land and water-development processes.

In addition, SCS provides information, data, and research results that are important to land owners and operators and that will be helpful to them in making decisions. More important among these are:

(1) Information on sources of credit, cost-sharing, and other financial assistance.

(2) The need for competence in recreation enterprise management operations.

(3) The relation of the location of the resources to various recreation needs.

(4) Standard designs for recreation facilities.

Furthermore, SCS, in cooperation with soil conservation districts and other organizations, assists in conducting inventories of recreation facilities and potentials in order to provide information that will guide comprehensive recreation plans on a community, district, or area basis.

These new functions accentuate the importance of natural resource specialists' keeping abreast of the ever-broadening field of conservation and wise use of land and water. The resource conservation technician today should be qualified to advise on land and water treatment and practices used for outdoor recreation and many other purposes not thought of as conservation farming operations a few years ago.

A good conservation technician today consults with local planning, zoning, and regulatory authorities in the development of standards that will assure safe and healthful development of land and water for high-quality outdoor recreation to help meet the needs of the community, a nearby city, or urban population of distant places.

Under the broad leadership responsibility, he must be able to supply resource data and appropriate technical help in planning for use of the land and water and point out the limitations for various uses to the landowner.

He could not, however, be expected to provide all the information a landowner needs. He should point out to the landowner that even though conservation and wise use are basic to rural recreation success, other elements will be needed for a commercial operation—a peculiar kind of management, marketing, merchandising, and supervision of the enterprise.

He will urge the landowner going into the recreation business to obtain the best information available including the help of other specialists in developing a well-rounded commercial recreation enterprise.

The development of outdoor recreation is an important approach to rural areas development, improved rural living, and a broadened base for the rural economy in many areas of the country. The goal in outdoor recreation should be the bringing together of land, water, and people in appropriate harmony so that the welfare of all will be enhanced. In reaching that goal, however, it must be kept in mind that there are two primary functions of the Soil Conservation Service in recreation resource development:

(1) Technical assistance in land use for recreation purposes in accordance with Public Law 46, Public Law 566, and the Food and Agriculture Acts of 1962 and 1965.

(2) SCS leadership and liaison responsibility with other local, State, and Federal agencies and organizations in a position to assist in the development of recreation programs.

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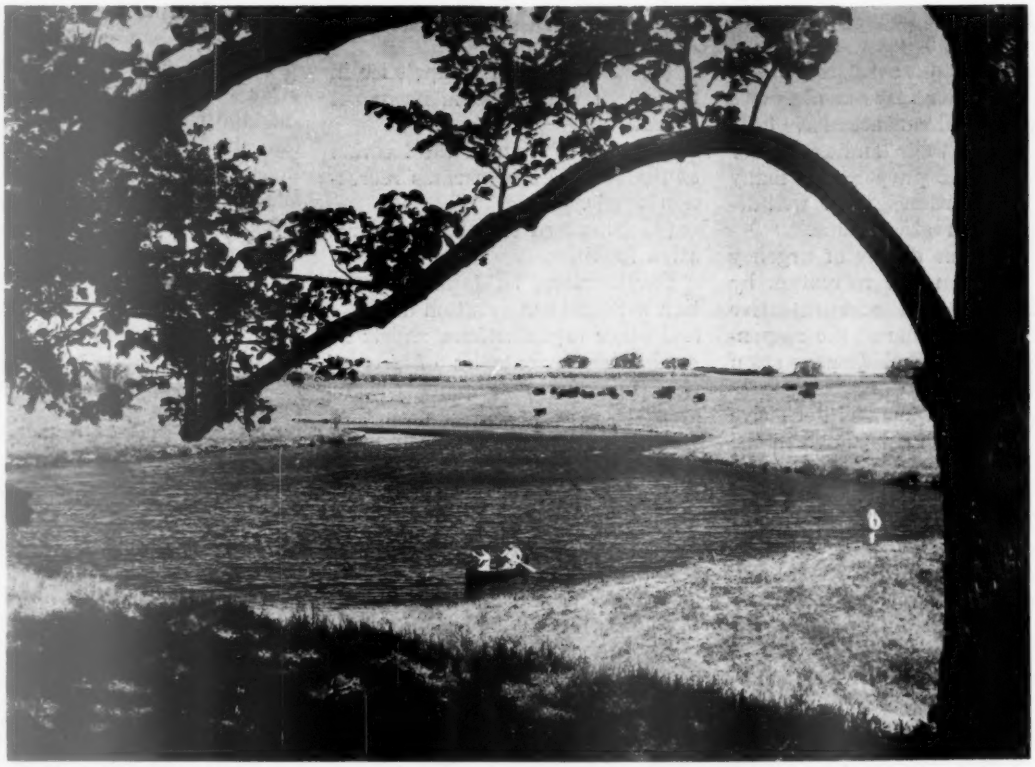

America The Beautiful—Iowa FARM POND BASS AND BLUEGILL FISHING
POLK COUNTY SOIL CONSERVATION DISTRICT

The "America the Beautiful" photo exhibit—one picture for each State, Puerto Rico, and the Virgin Islands—has been reproduced in full-color lithographs suitable for framing. Prints are available from the Superintendent of Documents for 10 cents each or $5.00 for the complete set. Order blanks can be obtained from local Soil Conservation Service offices and at most post offices.